

REMARKS

Claims 1-20 are pending in the application. Claims 1-2 and 8-13 are rejected under 35 U.S.C. 103. Claims 3-7 and 14 are objected to. Claims 15-20 are allowed. Claims 8 and 9 are hereby canceled. Claims 1, 3, 5, 10 and 14 are hereby amended. New claims 21-28 are added. No new matter has been introduced by these amendments. Applicants respectfully traverse the claim rejections.

Claim Objections

Claims 3-7 and 14 are objected to as being dependent on a rejected base claim. Claims 3, 5 and 14 have been amended to become independent claims that include all of the limitations of the base claim and intervening claims. Reconsideration and allowance of claims 3-7 and 14 is requested.

§ 103 Rejections

Claims 1, 8-9, 11 and 12 are rejected under § 103(a) as being unpatentable over U.S. Patent No. 5,792,077 to Gomes in view of U.S. Patent Nos. 5,324,038 to Sasser and 4,667,685 to Fine.

As amended, claim 1 describes a joint angle indication system having a biofeedback circuit that generates a first feedback signal having a first audio frequency and a second feedback signal having a second audio frequency that is different from the first audio frequency. The difference in audio frequency between the first and second feedback signals allows the user of the joint angle indication system to know when the angular limits have been reached.

In regard to claim 1, it is stated in the Office Action that the Gome reference does not disclose first and second feedback signals that are aurally different, but the Sasser reference does. This is correct, in that the Sasser reference describes an "unmodified tone signal" (col. 11, lines 35-38) and a "modified tone signal" that is audibly distinguishable from the unmodified signal (col. 11, lines 51-54). However, Sasser does not describe how the "modified" signal is distinguishable from the "unmodified" signal. Sasser merely describes the "modified" signal as being modulated by a signal modulator (99), but does not describe how the "modified" signal is modified by the modulation. It could be the "modified" signal is given a pulsed amplitude modulation to make it sound different from the "unmodified"

signal, but that is merely speculation because Sasser does not say how the “modified” signal is modified.

Sasser does not describe modulating the “modified” signal to give it a different audio frequency from the “unmodified” signal. Thus, the Sasser reference does not describe first and second feedback signals having different audio frequencies. Since neither the Sasser or Gome references describe this limitation of claim 1, the combination of the teachings of Sasser and Gome do not provide this limitation. Accordingly, claim 1 patentably defines over the combination of Gome and Sasser.

The joint angle indication system of amended claim 1 also includes a digital angle display device for visually displaying a digital joint angle value. It is stated in the Office Action that the Gome reference does not disclose an angle display circuit for visually displaying a joint angle value, but the Fine reference does. Fine discloses the use of multiple LED's to visually indicate changes in a joint angle, where the LED's are switched on or off as the joint angle varies through threshold angle values. However, Fine does not disclose or suggest a device for displaying a digital joint angle value as required by amended claim 1. Since neither the Sasser or Fine references describe the digital angle display device of claim 1, the combination of the teachings of Sasser and Fine do not provide this limitation. Accordingly, claim 1 patentably defines over the combination of Gome and Fine.

Reconsideration and allowance of claim 1 is requested.

Claims 11 and 12 depend from independent claim 1 as amended, and describe additional important features of the invention. Therefore, claims 11 and 12 patentably define over Gome in view of Sasser and Fine for the same reasons as discussed above for claim 1. However, claims 11 and 12 also require an audio output circuit for generating an audio indication signal. It should be noted this audio indication signal is distinct from the first and second feedback signals generated by the biofeedback circuit. None of the cited prior art references describe a circuit for generating an audio indication signal that is distinct from the feedback signals. Reconsideration and allowance of dependent claims 11 and 12 is respectfully requested.

Claims 1 and 10-12 are rejected under § 103(a) as being unpatentable over U.S. Patent No. 5,754,121 to Ward et al. in view of U.S. Patent Nos. 5,324,038 to Sasser and 4,667,685 to Fine. As noted in the Office Action, the Ward et al. reference does not describe first and

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second feedback signals that are aurally different or an angle display circuit for visually displaying a joint angle. For the same reasons set forth above, the combination of Ward et al. and Sasser does not provide a biofeedback circuit that generates first and second feedback signals having different audio frequencies. Further, for the same reasons as above, the combination of Ward et al. and Fine does not provide a device for displaying a digital joint angle value. Accordingly, claims 1 and 10-12 patentably define over the combination of Ward et al., Sasser and Fine. Reconsideration and allowance of claims 1 and 10-12 is respectfully requested.

Claim 13 is rejected under § 103(a) as being unpatentable over U.S. Patent No. 5,754,121 to Ward et al. in view of U.S. Patent Nos. 5,324,038 to Sasser and 4,667,685 to Fine. Claim 13 depends on claim 12. As set forth above, claim 12 patentably defines over the combination of Ward et al., Sasser and Fine. Claim 13 further requires the joint angle indication system include a microphone for generating an audio annotation signal.

The Steve reference does not describe a microphone for generating an audio annotation signal. The microphone described at paragraph [0026] of the Steve reference is used for "voice setup" of the monitoring device, not for generating an annotation signal. Therefore, claim 13 patentably defines over Ward et al. in view of Sasser, Fine and Steve. Reconsideration and allowance of claim 13 is requested.

Having now fully and completely responded to the Office Action, Applicants assert that the claims are all fully in condition for allowance. Reconsideration and allowance are respectfully requested.


If the Examiner identifies further issues which may be resolved by telephone, the Examiner is invited to contact the undersigned at (865) 546-4305.

In the event that this response is not timely filed, Applicants hereby petition for an appropriate extension of time. The fee for this extension, along with any other fees which may be due with respect to this response, may be charged to our deposit account No. 12-2355.

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Respectfully submitted,

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